

ELECTRONIC BOOK DEVICE

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates in general to electronic devices for the display and input of text and data. Specifically, the present invention provides a single screen or a hinged dual screen electronic device which can display textual and graphical information stored in various memory cards or compatible media and has an integrated data entry capability. More specifically, the electronic device has a screen orientation function which allows the user to orient and use the device in either a side-by-side fashion, i.e. like a book, or in an over/under fashion, i.e. like a laptop computer.

2. Description of the Prior Art

The following patents describe the state of the art in electronic hand held devices.

U.S. Pat. No. 4,891,775 to McWherter describes an electronic word game version of the game hangman. The device has a memory containing a word list arranged in a tree format and a tree search control module to compare an input word against the tree memory to provide a valid output word. A random number generator generates a random number for each position in the input word size selected. The random number selects from a predetermined letter table which has a frequency distribution equal to the usage in the English language. The result is a selected letter sequence having the proper size, which is then traversed against the memory to find a word.

U.S. Pat. No. 4,490,811 to Yianilos et al. describes a string comparator device for comparison of strings of indicia at high speeds for use in a system circuit in a computer system. The string comparison device provides a numeric measurement of the degree of similarity between the compared indicia strings as defined by a mathematical algorithm.

U.S. Pat. No. 4,830,618 to David describes a hand held electronic spelling machine. A keyboard is provided for entry of the specified word and search results are displayed on a single line display. A scrolling function is provided for viewing the words found.

U.S. Pat. No. 5,007,019 to Squillate et al. describes an electronic dictionary for entering a word and displaying the associated synonyms of the word. A history list is generated which contains user selected words, so as to enable the user to review the words at a later time. This enables the user to track through the history list to explore any desired complex arrangement of concepts, ideas and relationships.

U.S. Pat. No. 5,113,340 to McWherter describes improvements to hand held spelling machines. Specifically, search speed is increased by providing a look up table which encodes all character sets of one or two letters into a coded string.

U.S. Pat. No. 5,249,965 to Yianilos describes an improvement to electronic crossword puzzle solving machines which provides alternative words for an entered word. Initial activation of the search finds all words having only one different letter. Succeeding activations look for 2, 3, and so on different letters than the entered word.

European Patent Office Publication No.: 0 136 379 B1 describes a word comparator for finding numerical similarity between the compared words.

Franklin Electronic Publishers, Inc. has an electronic device, Digital Book System—Model DBS-2 which has a keyboard for data entry and for operational control of the

electronic device. It has a five line display and scrolling arrows for viewing the rest of the text. The device has two slots for memory cards.

Zenith Data Systems has a device termed the CruisePAD.

It uses a radio device to connect it to and access PC software and hardware which may be 500 feet away. It has a processor, memory, storage, an expansion port and a network connection. It has an operating system and applications and interface devices such as a display, keyboard, mouse and audio equipment. Hot keys are provided for access to basic functions. It can alternatively be connected to a PC via a PCMCIA card.

EPSON has a EHT-400S, which is a small portable system with DOS, Windows and UNIX capabilities. It has a processor, memory, display screen, and two PCMCIA Type III slots (or 4 Type II). It has a resistive film touch panel for input. EHT-400C is a comparable color version.

Sony has the PIC-1000 Communicator which can send and receive electronic mail, faxes and has software for organizing and scheduling. User can create a message on the on-screen keyboard or write in their own handwriting using the stylus. It has an internal data and fax modem, infrared beam communication, one PCMCIA Type II slot and a serial interface port.

U.S. Pat. No. 4,159,417 to David P. Rubincam describes an apparatus which includes a digital memory, a sensor for sensing information from the memory, logic circuitry coupled to the sensor, and a display for visually displaying the stored information. It further includes a portable container for containing the above elements, a control mechanism for controlling what information is displayed and a memory card having a matrix of holograms which contain binary bits of information.

U.S. Pat. No. 4,160,242 to Gerald C. Fowler describes a reading machine which provides a visual display of collected textual material. The device has an addressable memory for storing the textual material and an output means for providing output signals corresponding to the textual material at selected addresses in the memory, a means for addressing the memory and select the desired material, operator means for selecting the material, comparison means for inhibiting further processing when the desired material has been selected, a second memory, a control means for connecting to the first or second memory and a display mechanism for visually showing the selected textual material.

U.S. Pat. No. 4,757,302 to Atsushi Hatakeyama et al, assigned to Hitachi, Ltd., describing an image display device for paging images on a display screen. The device comprises a memory for storing a plurality of page images with image identification numbers, display means for sequentially reading and displaying the page images by successive line scanning with a specified display interval time, display speed control means for specifying the interval time and direction of paging, time measurement means, and means for continuously sampling the display interval time and for comparing a sampled value with elapsed time for controlling the paging.

Thomson Consumer Electronics has a portable self-contained videodisc player and associated screen. The player has a 10" LCD display, a videodisc player, sound and a six hour battery supply.

Notwithstanding the above prior art, it is believed that the device set forth herein is neither taught nor rendered obvious.

SUMMARY AND OBJECTS OF THE INVENTION

The present invention is an electronic book device which combines the look and feel features of a conventional book